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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,449

12/27/2005

Eiji Shiba

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3547

22428 7590 04/21/2009  
FOLEY AND LARDNER LLP  
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EXAMINER

ZEMEL, IRINA SOPHIA

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/21/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,449	<b>Applicant(s)</b> SHIBA ET AL.	
	<b>Examiner</b> Irina S. Zemel	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-4, 6-7, 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/14423 to Kuraray Co., (hereinafter "Kuraray").

The rejection stands as per reasons of record.

Insofar as the newly added limitation to the block copolymer being at least triblock or hydrogenated or non-hydrogenated S-B-S type, the reference expressly discloses such copolymers in [0033-39]. The newly added limitation to the composition being non-crosslinked, unfoamed and obtained by melt-plasticization, the Kuraray reference expressly discloses a process where all of the components with the exception of crosslinking agent are first added and kneaded. See [0087], and description of kneading process in [0084], which is conducted at the temperatures above melting/softening temperatures on the base polymeric component, thus satisfying the 'melt plasticization' limitation. The composition obtained via such process and prior to addition of the peroxide fully correspond to the claimed composition.

The invention as claimed, therefore, is fully anticipated by the disclosure of the reference.

***Claim Rejections - 35 USC § 102/103***

Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kuraray.

The rejection stands as per reasons of record.

***Claim Rejections - 35 USC § 103***

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuraray

The rejection stands as per reasons of record.

Claims 1-4,6-7 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 001-26663 to Sanwa Kako KK., (hereinafter "Sanwa")

The disclosure of the reference is discussed in the previous office action which disclosure is incorporated herein by reference. While the reference expressly discloses the claimed SEPS or SBS block copolymers as styrene-based copolymer of his invention, the reference expressly addresses the point why it is better to use vinyl-polyisoprene in place of polybutadiene as the block in the styrene based copolymers. Specifically, the reference states that crosslinking takes place more easily, hardening occurs faster and elongation is less when butadiene is used instead of isoprene as the middle block. Therefore, in view of expressed teachings of Sanwa reference, it would have been obvious for one of ordinary skill in the art to use SBS copolymer (which is significantly cheaper than high vinyl content SIS copolymer) for applications where the alternative characteristics are needed (such as crosslinking), or where the benefits achieved by using vinyl SIS copolymers is either not needed or not desirable,

It is also the examiner's position that functional equivalence and specific properties associated with either type of SBS SIS (various vinyl make up or various 1-4, 1-2, or 3-4 addition as well as its hydrogenated varieties) are extremely well known in the art of styrene/diene based block copolymers and substitution of one in place of another (any kind) would have been clearly obvious to an ordinary artisan in view of such ample and widely known characteristics and properties of each specific type of styrene/diene copolymers.

Claims s 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Kuraray or Sanwa in combination with EP 1229076 to Mitsui Chemicals, INC., (hereinafter "Mitsui").

The rejection stands as per reasons of record.

### ***Response to Arguments***

Applicant's arguments filed 1-12-2009 have been fully considered but they are not persuasive. The applicant arguments that Kuraray only discloses a crosslinked composition that is obtained by subjecting the recited crosslinkable composition to dynamic crosslinking, which is effected by applying heat and shear by melt kneading are not persuasive since, as discussed above, the reference expressly discloses alternative embodiments that produce non-crosslinked and non-foamed intermediates that fully correspond to the claimed invention.

The arguments regarding the Sanwa reference not disclosing the claimed block copolymer is discussed above. The anticipatory rejection over this reference has been

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withdrawn and an obviousness rejection is applied in view of the applicants amendment deleting S-I-S type block copolymers from the scope of the claimed invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/  
Primary Examiner, Art Unit 1796

Irina S. Zemel  
Primary Examiner  
Art Unit 1796

ISZ